

Title (en)  
A medical guide wire

Title (de)  
Medizinischer Führungsdraht

Title (fr)  
Fil de guidage médical

Publication  
**EP 1547638 B1 20080618 (EN)**

Application  
**EP 04258115 A 20041223**

Priority  
JP 2003428575 A 20031225

Abstract (en)  
[origin: EP1547638A2] In a medical guide wire (1) formed by a helical hollow wire body which is arranged to retractably move against a needle tip (6), the helical hollow wire body is formed into a wire-stranded helical hollow tube (2) by stranding a multitude of wire coil elements (3). The wire coil elements (3) of a wire-stranded helical hollow tube (2) has a stranding angle ( $\theta_1$ ) of 55 degrees or less against an axial direction of the wire-stranded helical hollow tube (2), and having an angle more than plus 2 degrees or an angle less than minus 2 degrees against a knife edge angle ( $\theta_2$ ) of the needle tip (6), thus preventing the wire coil elements (3) from inadvertently hitched in the needle tip (6), and thereby enabling manipulators to a smooth insertion and pull operation so as to improve curability when the wire-stranded helical hollow tube (2) is retractably manipulated against the needle tip (6). <IMAGE>

IPC 8 full level  
**A61M 25/01** (2006.01); **A61M 25/09** (2006.01)

CPC (source: EP US)  
**A61M 25/09** (2013.01 - EP US); **A61M 2025/09066** (2013.01 - EP US); **A61M 2025/09191** (2013.01 - EP US)

Cited by  
EP2865407A1; EP2505225A3; CN110212393A

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**EP 1547638 A2 20050629; EP 1547638 A3 20051109; EP 1547638 B1 20080618**; AT E398475 T1 20080715; AT E409505 T1 20081015;  
DE 602004014464 D1 20080731; DE 602004016893 D1 20081113; EP 1772167 A2 20070411; EP 1772167 A3 20070606;  
EP 1772167 B1 20081001; HK 1075420 A1 20051216; JP 2005185386 A 20050714; US 2005154371 A1 20050714; US 7182757 B2 20070227

DOCDB simple family (application)  
**EP 04258115 A 20041223**; AT 04258115 T 20041223; AT 07001594 T 20041223; DE 602004014464 T 20041223;  
DE 602004016893 T 20041223; EP 07001594 A 20041223; HK 05109161 A 20051018; JP 2003428575 A 20031225; US 1839404 A 20041222